May 8, 2009

Via electronic mail

Ms. Carole H. Beswick and Members of the Board
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

Re: Draft NPDES Stormwater Permit for the County of Orange, Tentative Order No. R8-2009-0030

Dear Chair Beswick and Members of the Board:

We write on behalf of the Natural Resources Defense Council ("NRDC") and Orange County Coastkeeper ("Coastkeeper"). We have reviewed the May 1, 2009 draft of Tentative Order No. R8-2009-0030, NPDES Permit No. CAS618030. There has been an important development in MS4 permitting in California since your Board last met, as discussed below, and this development requires further edits to the language contained in Sections XII.C.1 and 2. We appreciate the opportunity to submit the following comments on Sections XII.C.1. and 2., as permitted by the May 1, 2009 transmittal letter from Division Chief Adackapara.

General Comment

As an initial matter, we wish to correct the impression that the language presented to the Board in the third draft of the Tentative Order last month reflected stakeholder consensus, an opinion expressed by a number of board members during the last hearing. It is true that the stakeholders engaged in a good faith effort which in some respects productively narrowed differences. It is, however, equally true that key disagreements remain: notably, Coastkeeper and NRDC continue to believe that good policy and law require a standard that *retains* on-site the design storm whenever possible. This does *not* equate to a "no discharge" requirement, because the design storm is relatively small, and many precipitation events will exceed it. It does mean, however, that Orange County would get the benefit of a superior pollution discharge standard whenever that could be implemented—a critical step forward, particularly because the water retained would be infiltrated or otherwise reused. Such an approach mirrors similar ones now being implemented or considered in locations as diverse

as Washington D.C., Philadelphia, West Virginia—and, through new federal buildings requirements, everywhere in the United States.

Critically in this connection, on May 7, 2009, the Los Angeles Regional Water Quality Control Board adopted NPDES No. CAS00402, a new MS4 permit for the County of Ventura and the incorporated cities therein. The adopted Ventura County MS4 permit requires onsite infiltration, capture and reuse, or evapotranspiration of the 85th percentile design storm—with no runoff. This latest development confirms that onsite retention of storm water is coextensive with the MEP standard. The adopted language circulated by Los Angeles Regional Water Board staff and adopted by a 5-1 vote of the Board is attached for your review.

Infiltration or reuse not only implements the MEP requirement (and others) contained in the Clean Water Act, it is also inarguably wise policy in drought-stricken California. Governor Schwarzenegger recently declared a state of emergency in California due to severe drought. The major Southern California water supplier will cut water deliveries across the region this summer by ten percent, the first such cut since the drought of the early 1990s.[1] Notably, the Governor's Proclamation orders public water agencies to essentially "find" more water through a variety of activities, including "…efforts to protect water quality or water supply."[2] As such, a standard that requires retention of the design storm with no runoff when possible is directly responsive to the Governor.

Thus, the Board has a decision to make: should it require the maximum practicable approach to reducing pollution in a County with many impaired watersheds or something less? The Board should clearly understand as it deliberates that Sections XII.C.1. and 2. currently reflect a proposal to do something less.

Specific Comments

Alternative Compliance

The additional phrase in Section XII.C.2. requiring alternative compliance if the onsite management requirements of the paragraph are not met should be clarified as follows:

Permit:

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[1] Bettina Boxall, *Southern California water agency to cut supplies by 10%*, L.A. Times, April 15, 2009, available at, http://www.latimes.com/news/local/la-me-mwd-water15-2009apr15,0,4326528.story.

[2] Office of the Governor of the State of California, Gov. Schwarzenegger Takes Action to Address California's Water Shortage, February 27, 2009, available at, http://gov.ca.gov/index.php?/print-version/press-release/11556/.

> "Projects that do not comply with this requirement shall meet the requirements established in section XII.E. for alternative or in-lieu compliance."
>
> Permit with clarification (underlined):
>
> "Projects that do not comply with this requirement shall meet the requirements established in section XII.E. for alternative or in-lieu compliance, <u>which shall assure at least equivalent environmental performance</u>"

We have previously submitted extensive support for requiring environmentally equivalent offsite mitigation when the LID standard cannot be met onsite. This is a feature of many draft and adopted permits. CICWQ and BIA agree with this concept, as indicated on page 11 of CICWQ's February 2009 letter to Mr. Adackapara, in which CICWQ states: "if a project proponent cannot feasibly treat the SUSMP water quality volume using the prioritized application of LID/SUSMP BMPs on-site, then off-site mitigation of the remaining treatment volume must occur."[3]

Remove References to Bio-Filtration

Sections XII.C.1. and 2., now modified with language proposed by U.S. EPA, are an improvement. However, staff modified that language to allow use of bio-filtration to meet the basic LID performance standard. We disagree. For all of the reasons previously discussed in our comment letters and expert reports, and for the reasons set forth in the technical supporting literature we have included in the record, NRDC and Coastkeeper strongly believe that the words "or bio-filter" should be deleted from the third line and "or bio-filtered" should be deleted from the eighth line of Section XII.C.2. The action of the Los Angeles Regional Water Board, discussed above, supports our request.

We appreciate the footnotes in this Section that attempt to circumscribe the use of bio-filtration and require "properly engineered and maintained" systems. However, as Coastkeeper Executive Director Garry Brown testified, experience shows that this is easier said than actually implemented. As such, the change to EPA's requested language to allow for bio-filtration serves as an "out" that will minimize environmental performance. In contrast to objectively clear requirements to "infiltrate, harvest and reuse, or evapotranspire, "bio-filter" is a subjective term open to interpretation—as is the requirement to "properly" engineer or maintain the systems.

Indeed, while we oppose the allowance for bio-filtration as part of the main LID standard, we believe that if this language remains over our objections, clarifying language in

[3] Correspondence from Dr. Mark Grey to Mr. Michael Adackapara, February 13, 2009, at 11.

footnotes 56 and 57 should close the loopholes we have identified.[4] There is consensus amongst the parties, including the BIA and CICWQ, that bio-filtration LID BMPs can be subject to abuse and therefore must be built and maintained to strong and clear requirements. For example, CICWQ states in its February 13, 2009 letter to this Board that "we recommend that hard feasibility criteria should be specified in the model WQMP/DAMP upon its renewal—such that developers should not be able to bypass implementation of appropriate LID BMPs."[5] These same parties emphasized their willingness to subject LID bio-filtration BMPs to clear design and maintenance requirements during last month's hearing.

Therefore, if the Board does not delete references to bio-filtration in Section XII.C.2., it should at minimum, make the following clarifications:

1. Footnotes 56 and 57 should state, in addition to stipulating that bio-filtration only be considered if infiltration, harvesting and reuse, and evapotranspiration are not feasible, as follows:

   "LID bio-filtration BMPs shall be designed to accommodate the design flow at a surface loading rate no greater than 5 inches per hour and shall have a total volume, including pore spaces and prefilter detention volume, no less than the runoff volume generated by the design storm depth times 0.75. Maximum ponding depth shall be 12 inches; minimum drainage time shall be 12 hours.

   "Runoff from impervious areas also may be dispersed to pervious landscaped areas in a ratio not to exceed 2 parts impervious area to one part pervious landscaped area. Pervious landscaped areas must be designed to pond and infiltrate runoff produced by the design storm depth. Maximum ponding depth shall be 2 inches and minimum topsoil-turf thickness 3 inches."

2. All other references to "treatment" which have not been corrected to refer to "bio-treatment" in Section XII should be modified. There are four such references in Section XII.C.7. to "treatment areas" and "or treat" in 7.a. through 7.d.

[4] We respectively reserve our rights to challenge this provision irrespective of any such clarifications.

[5] Correspondence from Dr. Mark Grey to Mr. Michael Adackapara, February 13, 2009, at 6.

Conclusion

We urge the Regional Board to improve the Tentative Order in the ways specified prior to its adoption. We appreciate staff's efforts to date during the adoption process and would be pleased to respond to any questions they may have about our comments.

Sincerely,

David S. Beckman
Bart Lounsbury
Noah Garrison
Natural Resources Defense Council

Garry Brown
Orange County Coastkeeper

~~project.~~ or their designee approves initiation of the project design.

8-78 (Pg. 55) Bottom

~~III.~~New Development/ Redevelopment Performance Criteria III.

1. Integrated Water Quality/Flow Reduction/Resources Management Criteria

(a) Except as provided in subpart 5.E.III. 2 below, Permittees shall require all New Development and Redevelopment projects identified in subpart 5.E.I1 to control pollutants, pollutant loads, and runoff volume emanating from impervious surfaces through infiltration, storage for reuse, evapotranspiration, or bioretention/biofiltration by reducing the percentage of Effective Impervious' Area (EIA) to 5 percent or less of the total project area.

(b) Impervious surfaces may be rendered "ineffective," and thus not count toward the 5 percent EIA limitation, if the stormwater runoff from those surfaces is fully retained onsite for the design storm event specified in provision (c), below. To satisfy the EIA limitation and low-impact development requirements, the permittees must require stormwater runoff to be infiltrated, reused, or evapotranspired onsite through a stormwater management technique allowed under the terms of this permit and implementing documents.

(c) The permittees shall require all features constructed or otherwise utilized to render impervious surfaces "ineffective," as described in provision (b), above, to be properly sized to infiltrate, store for reuse, or evapotranspire, without any runoff at least the volume of water that results from:

(1) The 85th percentile 24-hour runoff event determined as the maximized capture stormwater volume for the area using a 48 to 72-hour draw down time, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998);

(2) The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in the Ventura County Technical Guidance Manual for Storm

Water Quality Control Measures (July 2002 and its revisions); or

(3) The volume of runoff produced from a 0.75 inch storm event.

(d) To address any impervious surfaces that may not be rendered "ineffective, " surface discharge of stormwater runoff if any, that results from New Development and Redevelopment projects identified in subpart 5. E.11 which have complied with subparts 5.E.Ill 1(a)-(c), above, shall be mitigated in accordance with subpart 5.E.III.3'

2. Alternative Compliance for Technical Infeasibility

(a) To encourage smart growth and infill development of existing urban centers where onsite compliance with post-construction requirements may be technically infeasible, the perrnittees may allow projects that are unable to meet the Integrated Water Quality/Flow Reduction/Resources Management Criteria in subpart 5.E.111.1, above, to comply with this permit through the alternative compliance measures described in subpart 5.E.Ill2.c, below.

(b) To utilize alternative compliance measures, the project applicant must demonstrate that compliance with the applicable post-construction requirements would be technically infeasible by submitting a site-specific hydrologic and/or design analysis conducted and endorsed by a registered professional engineer, geologist, architect, and/or landscape architect. Technical infeasibility may result from conditions including the following:

(1) Locations where seasonal high groundwater is within 5 feet of the surface;

(2) Locations within 100 feet of a groundwater well used for drinking water,.

(3) Brownfield development sites or other locations where pollutant mobilization is a documented concern;

(4) Locations with potential geotechnical hazards;

(5) Smart growth and infill or redevelopment locations where the density and/or nature of the project would

create significant difficulty for compliance with the onsite volume retention requirement; and

(6) Other site or implementation constraints identified in the LID Technical Guidance document required by subpart 5.E.IV.5.

(c) Alternative Compliance Measures. When a permittee finds that a project applicant has demonstrated technical infeasibility, the permittee shall identify alternative compliance measures that the project will need to comply with as a substitute for the otherwise applicable post-construction requirements listed in subparts 5. E.11I. I (a)-(c) of this permit. The Ventura County Technical Guidance Manual shall be revised to identify the alternative compliance measures and shall include the following requirements:

(1) Minimum onsite requirement. The project must reduce the percentage of Effective Impervious Area to no more than 30 percent of the total project area and treat all remaining runoff pursuant to the design and sizing requirements of subparts 5. E.III.1(b)-(d).

(2) Offsite mitigation volume. The difference in volume between the amount of stormwater infiltrated, reused, and/or evapotranspired by the project onsite and the otherwise applicable requirements of subparts 5. E.I1I.1(a)-(c) (the "offsite mitigation volume'), above, must be mitigated by the project applicant either by performing offsite mitigation that is approved by the permittee or by providing sufficient funding for public or private offsite mitigation to achieve equivalent stormwater volume and pollutant load reduction through infiltration, reuse, and/or evapotranspiration.

(3) Location of off site mitigation. Offsite mitigation projects must be located in the same sub-watershed (defined as draining to the same hydrologic area in the Basin Plan) as the new development or redevelopment project. A list of eligible public and private offsite mitigation projects available for funding shall be identified by the Permittees and provided to the project applicant. Off site mitigation projects include green streets projects, parking lot retrofits, other site specific LID BMPs, and regional BMPs. Project applicants seeking to utilize these alternative compliance provisions may propose other offsite mitigation projects, which the Permittees may approve if they meet the requirements of this subpart.

(4) Timing and Reporting Requirements for Offsite Mitigation Projects. The Permittee(s) shall develop a schedule for the completion of offsite mitigation projects, including milestone dates to identify fund, design, and construct the projects. Offsite mitigation projects shall be completed as soon as possible, and at the latest, within ~~[3,4]~~ years of the certificate of occupancy for the first project that contributed funds toward the construction of the offsite mitigation project, unless a longer period is otherwise authorized by the Executive Officer. For public offsite mitigation projects, the permittees must provide in their annual reports a summary of total offsite mitigation funds raised to date and a description (including location, general design concept, volume of water expected to be retained, and total estimated budget) of all pending public offsite mitigation projects. Funding sufficient to address the

offsite mitigation volume must be transferred to the permittee (for public offsite mitigation projects) or to an escrow account (for private offsite mitigation projects) within one year of the initiation of construction.

(5) The project applicant must demonstrate that the EM achieved onsite is as close to 5 percent EIA as technically feasible, given the site's constraints.

(d) Watershed equivalence. Regardless of the methods through which permittees allow project applicants to implement alternative compliance measures, the sub-watershed -wide (defined as draining to the same hydrologic area in the Basin Plan) result of all development must be at least the same level of water quality protection as would have been achieved if all projects utilizing these alternative compliance provisions had complied with subparts 5.E.III1(a)-(d) of the permit. The permittees shall provide in their annual report to the Regional Board a list of mitigation project descriptions and pollutant and flow reduction analyses (compiled from design specifications submitted by project applicants and approved by the permittee(s)) comparing the expected aggregate results of alternative compliance projects to the results that would otherwise have been achieved by meeting the 5 percent EIA requirement onsite.

http://www.latimes.com/news/local/la-me-mwd-water15-2009apr15,0,4326528.story
From the Los Angeles Times

Southern California water agency to cut supplies by 10%

It is the first time such action has been taken since the early 1990s drought. Statewide water conditions remain below average for the third consecutive year, officials say.
By Bettina Boxall

April 15, 2009

The board of Southern California's major water wholesaler voted Tuesday to effectively cut water deliveries across the region by 10% this summer.

The Metropolitan Water District of Southern California has warned for months that the state's drought and environmentally driven cutbacks in water shipments from Northern California would leave demand higher than the supply.

"We're short," said Jeffrey Kightlinger, the water district's general manager.

The cuts are the agency's first since the early 1990s drought.

The Metropolitan Water District, which imports water from the Sacramento-San Joaquin delta and the Colorado River and sells it to local water districts, will achieve the reductions by imposing penalty rates. Local utilities that use more than their allocation will have to pay more.

In anticipation, Los Angeles is poised to adopt conservation rates aimed at getting residents to reduce their water use by 15%.

Statewide water conditions have improved in recent months but they remain below average for the third consecutive year.

Total storage in the Colorado River basin is also slightly better than last year. But a persistent drought in the basin has left the river's reservoirs at 54% of overall capacity. Lake Mead, which supplies Southern California, is 46% full, although it will get more water from upstream Lake Powell as the season progresses.

Last year, the Metropolitan Water District cut supplies to agricultural customers and it has suspended regional groundwater replenishment. All told, agency officials said they will deliver roughly 20% less water than three years ago.

The reduced deliveries have meant less sales revenue for the agency, which is also facing rising costs.

As a result, the agency will hike its prices by nearly 20% in September -- in addition to the penalty rates. The increase comes on top of a roughly 14% rate increase last year.

bettina.boxall@latimes.com

Office of the Governor ARNOLD SCHWARZENEGGER THE PEOPLE'S GOVERNOR

PRESS RELEASE

02/27/2009 GAAS:079:09 FOR IMMEDIATE RELEASE

Gov. Schwarzenegger Takes Action to Address California's Water Shortage

Proclaims State of Emergency, Directs Government to Utilize Resources, Help People

To combat California's third consecutive year of drought, Governor Arnold Schwarzenegger today proclaimed a state of emergency and ordered immediate action to manage the crisis. In the proclamation, the Governor uses his authority to direct all state government agencies to utilize their resources, implement a state emergency plan and provide assistance for people, communities and businesses impacted by the drought.

"Even with the recent rainfall, California faces its third consecutive year of drought and we must prepare for the worst - a fourth, fifth or even sixth year of drought," Governor Schwarzenegger said. "Last year we experienced the driest spring and summer on record and storage in the state's reservoir system is near historic lows. This drought is having a devastating impact on our people, our communities, our economy and our environment - making today's action absolutely necessary. This is a crisis, just as severe as an earthquake or raging wildfire, and we must treat it with the same urgency by upgrading California's water infrastructure to ensure a clean and reliable water supply for our growing state."

The Governor's order directs various state departments to engage in activity to provide assistance to people and communities impacted by the drought. The proclamation:

- Requests that all urban water users immediately increase their water conservation activities in an effort to reduce their individual water use by 20 percent
- Directs the Department of Water Resources (DWR) to expedite water transfers and related efforts by water users and suppliers
- Directs DWR to offer technical assistance to agricultural water suppliers and agricultural water users, including information on managing water supplies to minimize economic impacts and implementing efficient water management practices
- Directs DWR to implement short-term efforts to protect water quality or water supply, such as the installation of temporary barriers in the Delta or temporary water supply connections
- Directs the Labor and Workforce Development Agency to assist the labor market, including job training and financial assistance
- Directs DWR to join with other appropriate agencies to launch a statewide water conservation campaign calling for all Californians to immediately decrease their water use
- Directs state agencies to immediately implement a water use reduction plan and take immediate water conservation actions and requests that federal and local agencies also implement water use reduction plans for facilities within their control

In particular, the order directs that by March 30, 2009, DWR shall provide an updated report on the state's drought conditions and water availability. According to the proclamation, if the emergency conditions have not been sufficiently mitigated, the Governor will consider additional steps. These could include the institution of mandatory water rationing and mandatory reductions in water use; reoperation of major reservoirs in the state to minimize impacts of the drought; additional regulatory relief or permit streamlining as allowed under the Emergency Services Act; and other actions necessary to prevent, remedy or mitigate the effects of the extreme drought conditions.

DWR and California's Department of Food and Agriculture will also recommend, within 30 days, measures to

reduce the economic impacts of the drought, including but not limited to water transfers, through-Delta emergency transfers, water conservation measures, efficient irrigation practices, and improvements to the California Irrigation Management Information System.

Last week, DWR announced that California's severe drought had prevented it from increasing its State Water Project (SWP) delivery allocations for the first time since 2001. This year's allocation as of February is at just 15 percent of SWP contractor's requests. This is only the second time in SWP history that the February allocation has been this low.

The drought conditions and water restrictions are causing additional devastating economic and business losses. Agricultural revenue losses exceed $300 million to date and could exceed $2 billion in the coming season, with a total economic loss of nearly $3 billion in 2009.

Full text of proclamation:

A PROCLAMATION
BY THE GOVERNOR OF THE STATE OF CALIFORNIA

WHEREAS the State of California is now in its third consecutive year of drought; and

WHEREAS in each year of the current drought, annual rainfall and the water content in the Sierra snowpack have been significantly below the amounts needed to fill California's reservoir system; and

WHEREAS the rainfall and snowpack deficits in each year of the current drought have put California further and further behind in meeting its essential water needs; and

WHEREAS statewide, 2008 was the driest spring and summer on record, with rainfall 76 percent below average; and

WHEREAS the Sacramento and San Joaquin River systems, which provide much of the state's reservoir inflow, were classified as Critically Dry for the 2008 water year; and

WHEREAS in the second year of this continuous drought, on June 4, 2008, I issued an Executive Order proclaiming a statewide drought, and I ordered my administration to begin taking action to address the water shortage; and

WHEREAS because emergency conditions existed in the Central Valley in the second year of the drought, I issued an Emergency Proclamation on June 12, 2008, finding that conditions of extreme peril to the safety of persons and property existed in the counties of Sacramento, San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and Kern caused by severe drought conditions, and I ordered my administration to take emergency action to assist the Central Valley; and

WHEREAS the drought conditions and water delivery limitations identified in my prior Executive Order and Emergency Proclamation still exist, and have become worse in this third year of drought, creating emergency conditions not just in the Central Valley, but throughout the State of California, as the adverse environmental, economic, and social impacts of the drought cause widespread harm to people, businesses, property, communities, wildlife and recreation; and

WHEREAS despite the recent rain and snow, the three year cumulative water deficit is so large there is only a 15 percent chance that California will replenish its water supply this year; and

WHEREAS in the time since the state's last major drought in 1991, California added 9 million new residents, experienced a significant increase in the planting of permanent, high-value crops not subject to fallowing, and was subjected to new biological opinions that reduced the flexibility of water operations throughout the year; and

WHEREAS because there is no way to know when the drought will end, further urgent action is needed to address the water shortage and protect the people and property in California; and

WHEREAS rainfall levels statewide for the 2008-2009 water year are 24 percent below average as of the February 1, 2009 measurement; and

WHEREAS the second snow pack survey of the 2009 winter season indicated that snow pack water content is 39 percent below normal; and

WHEREAS as of February 23, 2009, storage in the state's reservoir system is at a historic low, with Lake Oroville 70 percent below capacity, Shasta Lake 66 percent below capacity, Folsom Lake 72 percent below capacity, and San Luis Reservoir 64 percent below capacity; and

WHEREAS low water levels in the state's reservoir system have significantly reduced the ability to generate hydropower, including a 62 percent reduction in hydropower generation at Lake Oroville from October 1, 2008 to January 31, 2009; and

WHEREAS a biological opinion issued by the United States Fish and Wildlife Service on December 15, 2008, imposed a 30 percent restriction on water deliveries from the State Water Project and the Central Valley Project to protect Delta Smelt; and

WHEREAS State Water Project water allocations have now been reduced to 15 percent of requested deliveries, matching 1991 as the lowest water allocation year in State Water Project history, and Central Valley Project water allocations for agricultural users have now been reduced to zero; and

WHEREAS the lack of water has forced California farmers to abandon or leave unplanted more than 100,000 acres of agricultural land; and

WHEREAS California farmers provide nearly half of the fresh fruits, nuts and vegetables consumed by Americans, and the crop losses caused by the drought will increase food prices, which will further adversely impact families and economies throughout California and beyond our borders; and

WHEREAS agricultural revenue losses exceed $300 million to date and could exceed $2 billion in the coming season, with a total economic loss of nearly $3 billion in 2009; and

WHEREAS it is expected that State Water Project and Central Valley Project water delivery reductions will cause more than 80,000 lost jobs; and

WHEREAS the income and job losses will adversely impact entire communities and diverse sectors of the economy supported by those jobs and income, including the housing market and commercial business; and

WHEREAS these conditions are causing a loss of livelihood for many thousands of people, an inability to provide for families, and increased harm to the communities that depend on them; and

WHEREAS this loss of income and jobs will increase the number of defaults, foreclosures and bankruptcies, and will cause a loss of businesses and property at a time when Californians are already struggling with a nationwide and worldwide economic downturn; and

WHEREAS the Central Valley town of Mendota, as one example, already reports an unemployment rate of more than 40 percent and lines of a thousand or more for food distribution; and

WHEREAS when jobs, property and businesses are lost, some families will move away from their communities, causing further harm to local economies, lower enrollments in local schools and reduced funding for schools; and

WHEREAS at least 18 local water agencies throughout the state have already implemented mandatory water conservation measures, and 57 agencies have implemented other water conservation programs or restrictions on water deliveries, with many agencies considering additional rationing and water supply reductions in 2009; and

WHEREAS the lack of water has forced local communities to draw water from their emergency water reserves, putting communities at risk of further catastrophe if emergency reserves are depleted or cut off; and

WHEREAS the state recently endured one of its worst wildfire seasons in history and the continuing drought conditions increase the risk of devastating fires and reduced water supplies for fire suppression; and

WHEREAS on February 26, 2009, the United States Department of Agriculture and the United States Department of Interior created a Federal Drought Action Team to assist California to minimize the social, economic, and environmental impacts of the current drought; and

WHEREAS the circumstances of the severe drought conditions, by reason of their magnitude, are beyond the control of the services, personnel, equipment and facilities of any single county, city and county, or city and require the combined forces of a mutual aid region or regions to combat; and

WHEREAS under the provisions of section 8558(b) of the California Government Code, I find that conditions of extreme peril to the safety of persons and property exist in California caused by the current and continuing severe drought conditions and water delivery restrictions.

NOW, THEREFORE, I, ARNOLD SCHWARZENEGGER, Governor of the State of California, in accordance with the authority vested in me by the California Constitution and the California Emergency Services Act, and in particular California Government Code sections 8625 and 8571, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist in California.

IT IS HEREBY ORDERED that all agencies of the state government utilize and employ state personnel, equipment and facilities for the performance of any and all activities consistent with the direction of the California Emergency Management Agency (CalEMA) and the State Emergency Plan.

I FURTHER DIRECT THAT:

1. The California Department of Water Resources (DWR) shall, in partnership with other appropriate agencies, launch a statewide water conservation campaign calling for all Californians to immediately decrease their water use.

2. DWR shall implement the relevant mitigation measures identified in the Environmental Water Account Environmental Impact Report, Environmental Impact Statement, Supplement, and Addendums for the water transfers made through the 2009 Drought Water Bank. In addition, the California Air Resources Board shall, in cooperation with DWR and other agencies, expedite permitting and development of mitigation measures related to air quality impacts which may result from groundwater substitution transfers.

3. DWR and the State Water Resources Control Board (SWRCB) shall expedite the processing of water transfers and related efforts by water users and suppliers that cannot participate in the 2009 Drought Water Bank, provided the water users and suppliers can demonstrate that the transfer will not injure other legal users of water or cause unreasonable effects on fish and wildlife.

4. The SWRCB shall expedite the processing and consideration of the request by DWR for approval of the consolidation of the places of use and points of diversion for the State Water Project and federal Central Valley Project to allow flexibility among the projects and to facilitate water transfers and exchanges.

5. DWR shall implement short-term efforts to protect water quality or water supply, such as the installation of temporary barriers in the Delta or temporary water supply connections.

6. The SWRCB shall expedite the processing and consideration of requests by DWR to address water quality standards in the Delta to help preserve cold water pools in upstream reservoirs for salmon preservation and water supply.

7. To the extent allowed by applicable law, state agencies within my administration shall prioritize and streamline permitting and regulatory compliance actions for desalination, water conservation and recycling projects that provide drought relief.

8. The Department of General Services shall, in cooperation with other state agencies, immediately implement a water use reduction plan for all state agencies and facilities. The plan shall include immediate water conservation actions and retrofit programs for state facilities. A moratorium shall be placed on all new landscaping projects at state facilities and on state highways and roads except for those that use water efficient irrigation, drought tolerant plants or non-irrigated erosion control.

9. As a condition to receiving state drought financial assistance or water transfers provided in response to this emergency, urban water suppliers in the state shall be required to implement a water shortage contingency analysis, as required by California Water Code section 10632. DWR shall offer workshops and technical assistance to any agency that has not yet prepared or implemented the water shortage contingency analysis required by California law.

10. DWR shall offer technical assistance to agricultural water suppliers and agricultural water users, including information on managing water supplies to minimize economic impacts, implementing efficient water management

practices, and using technology such as the California Irrigation Management Information System (CIMIS) to get the greatest benefit from available water supplies.

11. The Department of Public Health shall evaluate the adequacy of emergency interconnections among the state's public water systems, and provide technical assistance and continued financial assistance from existing resources to improve or add interconnections.

12. DWR shall continue to monitor the state's groundwater conditions, and shall collect groundwater-level data and other relevant information from water agencies, counties, and cities. It is requested that water agencies, counties and cities cooperate with DWR by providing the information needed to comply with this Proclamation.

13. DWR and the Department of Food and Agriculture shall recommend, within 30 days from the date of this Proclamation, measures to reduce the economic impacts of the drought, including but not limited to, water transfers, through-Delta emergency transfers, water conservation measures, efficient irrigation practices, and improvements to CIMIS.

14. The Department of Boating and Waterways shall recommend, within 30 days from the date of this Proclamation, and in cooperation with the Department of Parks and Recreation, measures to reduce the impacts of the drought conditions to water-based recreation, including but not limited to, the relocation or extension of boat ramps and assistance to marina owners.

15. The Labor and Workforce Development Agency shall recommend, within 30 days from the date of this Proclamation, measures to address the impact of the drought conditions on California's labor market, including but not limited to, identifying impacted areas, providing one-stop service, assisting employers and workers facing layoffs, and providing job training and financial assistance.

16. DWR and the Department of Food and Agriculture shall be the lead agencies in working with the Federal Drought Action Team to coordinate federal and state drought response activities.

17. The emergency exemptions in Public Resources Code sections 21080(b)(3), 21080(b)(4) and 21172, and in California Code of Regulations, title 14, section 15269(c), shall apply to all actions or efforts consistent with this Proclamation that are taken to mitigate or respond to this emergency. In addition, Water Code section 13247 is suspended to allow expedited responses to this emergency that are consistent with this Proclamation. The Secretary for the California Environmental Protection Agency and the Secretary for the California Natural Resources Agency shall determine which efforts fall within these exemptions and suspension, ensuring that these exemptions and suspension serve the purposes of this Proclamation while protecting the public and the environment. The Secretaries shall maintain on their web sites a list of the actions taken in reliance on these exemptions and suspension.

18. By March 30, 2009, DWR shall provide me with an updated report on the state's drought conditions and water availability. If the emergency conditions have not been sufficiently mitigated, I will consider issuing additional orders, which may include orders pertaining to the following:

(a) institution of mandatory water rationing and mandatory reductions in water use;

(b) reoperation of major reservoirs in the state to minimize impacts of the drought;

(c) additional regulatory relief or permit streamlining as allowed under the Emergency Services Act; and

(d) other actions necessary to prevent, remedy or mitigate the effects of the extreme drought conditions.

I FURTHER REQUEST THAT:

19. All urban water users immediately increase their water conservation activities in an effort to reduce their individual water use by 20 percent.

20. All agricultural water suppliers and agricultural water users continue to implement, and seek additional opportunities to immediately implement, appropriate efficient water management practices in order to minimize economic impacts to agriculture and make the best use of available water supplies.

21. Federal and local agencies also implement water use reduction plans for facilities within their control, including immediate water conservation efforts.

I FURTHER DIRECT that as soon as hereafter possible, this proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this proclamation.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 27th day of February, 2009.

ARNOLD SCHWARZENEGGER
Governor of California

ATTEST:
DEBRA BOWEN
Secretary of State

Construction Industry Coalition on Water Quality

February 13, 2009

Michael Adackapara
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

RE: Tentative Order No. R8-2008-0030 (NPDES Permit No. CAS618030) Waste Discharge Requirements for the County of Orange, Orange County Resources and Development Management Department, and the Incorporated Cities of Orange County Within the Santa Ana Region Areawide Urban Storm Water Runoff, Orange County

Dear Mr. Adackapara:

On behalf of the more than 3,000 member companies of the Construction Industry Coalition on Water Quality (CICWQ), we would like to thank the Santa Ana Regional Water Quality Control Board (Regional Board) for the opportunity to offer this public comment on the Draft Orange County Municipal Separate Storm Sewer System Permit, Tentative Order No. R8-2008-0030 (Draft Permit). We also appreciate the Regional Board's participation in the series of permit stakeholder meetings that we have had to date. This letter and attachments provide constructive suggestions that we have for the Draft Permit, and defines where we feel we have reached conceptual agreement on planning and land development provisions (most notably Low Impact Development and Hydromodification Control requirements) that have been discussed and debated thoroughly within a stakeholder group framework since December 2008.

I. Introduction

CICWQ is comprised of the four major construction and building industry trade associations in Southern California: the Associated General Contractors of California (AGC), the Building Industry Association of Southern California (BIA/SC), the Engineering Contractors Association (ECA) and the Southern California Contractors Association (SCCA). The membership of CICWQ is comprised of construction contractors, labor unions, landowners, developers, and homebuilders working throughout the region and state.

These organizations work collectively to provide the necessary infrastructure and support for the region's business and residential needs. Members of all of the above-referenced organizations are affected by the Draft Permit, as are thousands of construction employees and builders working to meet the demand for modern

infrastructure and housing in Orange County. Our organizations support efforts to improve water quality in a cost effective manner. Our comments and suggestions on the Draft Permit as well as our active involvement in the stakeholder group process reflect our commitment to protect water quality while at the same time preserve our member's economic viability in this difficult economic environment. Our membership has invested significant resources into developing sound engineering approaches for Low Impact Development (LID) stormwater management techniques and for hydromodification control, facilitating the appropriate application of these valuable approaches to water quality management. Our comments reflect this commitment to sound engineering practices and consideration of site-specific feasibility considerations.

II. Preliminary Statement

The stakeholder discussions have demonstrated that the new terms and provisions of the Draft Permit are not self-defining. They could potentially invite misunderstanding because different people might impute different meanings and definitions for the same terms. Regardless of this potential, we believe that considerable progress has been made, and that significant common ground is being found. Most importantly, we share the common goal of moving the permit program in the direction of LID Best Management Practices ("BMPs"), and we appreciate the need to avoid hydromodification impacts to sensitive stream channels. We agree that conventional stormwater BMPs should not be used as the primary BMP approach for a site unless it is plainly infeasible or undesirable due to ecological or other societal considerations (e.g. ultra high density project) to use LID BMPs. We also continue to favor regional BMPs and off-site solutions when they can be demonstrated to achieve a high environmental benefit, recognizing at the same time that these options cannot be mandated when they are not generally available, and may not be for some time.

We also believe that there are certain realities for which the Draft Permit must account, including the following principal points:

- A 2-year, 24-hour design storm volume for LID BMPs is not realistic, and should be replaced with a capture volume corresponding to the current criterion in the existing permit and the Drainage Areawide Management Plan (DAMP). Our understanding is that all those participating in the stakeholder process, including the agency and the Non-Governmental Organizations ("NGOs"), are in agreement on this point.

- A 95 percent non-effective impervious area ("EIA") requirement does not make sense given that LID BMPs should apply to 100 percent of the capture volume. In addition, the term "EIA" lacks a common, understandable and implementable definition, and is too vague and ambiguous to be used as a logical standard. There seems to be willingness on the part of the agency and the NGOs to consider a capture volume approach, without the complication and confusion created by appending EIA to it. The NGOs have acknowledged that EIA lacks meaning

without a design storm volume specified and clear criteria of what would be considered non-effective impervious area. This is an important acknowledgement, which we appreciate, as it tends to show that EIA as a stand-alone concept does not have value or relevance.

- Mandating the complete on-site retention of capture volume (i.e. runoff that never leaves as surface flows) is not a reasonable approach. Total, 100 percent retention remains a practical infeasibility in most circumstances, and is not a goal that can be achieved for most projects within any reasonable cost, despite best efforts. Thus, the retention BMPs of infiltration, harvesting, and evapotranspiration ("ET") may be fairly described as a favored first tier of LID BMPs, but they should not be universally mandated to the exclusion of all other options. While we understand that the NGOs would prefer to see the retention BMPs applied everywhere, and every project retain the entire capture volume on site, there seems to be some level of appreciation that this ideal is not possible, or even necessarily desirable, as a universal mandate.

- Biofiltration, bioretention, filter strips, and other BMPs based on using vegetation to promote stormwater treatment should be added to the suite of LID BMPs available to project proponents. These BMPs may be specified as a second tier, but project proponents should have considerable discretion to use these BMPs, and should not be required to apply for a feasibility exception to do so. The Regional Board and NGOs seem amenable to including these BMPs in the universe of LID, especially if projects must use underdrains in these features due to the feasibility and desirability of infiltration.

- The use of conventional BMPs as the principal approach for stormwater management should be a last resort, available only when objective infeasibility criteria are satisfied, and when off-site opportunities are not readily available. When LID BMPs are infeasible, and off-site opportunities are not available, the use of conventional BMPs that have been demonstrated to be effective on the pollutants of concern should be a compliance option.

- The approach to hydromodification control needs to be carefully considered on a watershed specific basis. Each stream or stormwater conveyance system is unique along with unique characteristics of the watershed. Hydromodification impacts can come from not just increasing runoff volumes, but also reduction in sediment supply from upland areas. Finally, many of Orange County's streams and stormwater conveyances are geomorphically stable and do not require hydromodification controls. Therefore, we recommend that hydromodification controls be targeted to those watersheds that drain to sensitive systems and that these controls over time be tailored to specific watersheds. There should be a provision that if a hydromodification plan is submitted for a project that provides a technically accurate hydromodification assessment and control plan, that project

can implement those provisions rather than any generalized non-watershed specific requirements.

Finally, we are enthusiastic about advancing a variety of leading-edge issues through a watershed master planning process. These plans would facilitate progress on unresolved issues related to science, technology and feasibility. On a much more granular basis than is available today, watershed-specific master plans can help determine appropriate project BMP requirements, retrofit BMPs, source controls, and other watershed efforts to address specific, receiving water beneficial uses.

Such plans hold the promise of a better path towards achieving water quality standards, replacing the relatively fractured, site-by-site, *ad hoc* approach of the current paradigm, with an overall scheme for water quality improvement. Watershed-specific master plans will provide project proponents with a level of certainty that does not presently exist and make cost-effective and environmentally-superior, regional and sub-regional water quality solutions available. Examples of issues to be explored include opportunities for harvesting, mapping of sensitive channels, determining areas where infiltration should be promoted, and compiling information on groundwater quality and contamination. There also could be added focus on an integrated approach to addressing impairment, and protecting high-quality, specially-protected areas.

III. Comments

What follows are our comments, organized into three sections and supported with attachments where noted: (1) comments on Finding No. 62; (2) comments on Section XII: New Development (Including Significant Redevelopment); and (3) comments on areas of conceptual agreement, where we list areas within the Draft Permit structure upon which the stakeholder group (and *ad-hoc* technical subgroup) reached general consensus.

A. Comments on Finding No. 62

CICWQ does not support this finding, the implications of it, and the utility of using EIA in defining "requirements for new development and redevelopment projects." The finding supports EIA as a performance standard in sizing and implementing LID BMPs, yet does not reflect the current state of knowledge concerning the much greater efficacy of other performance standards for sizing LID BMPs.

BIA/SC communicated with the U.S. Environmental Protection Agency (EPA) regarding their intent in using EIA as a performance standard in designing and implementing LID BMPs. While EPA supports the use of "clear, measureable, and enforceable requirements" for LID performance, such as limitations on EIA, EPA's letter to BIA/SC dated July 31, 2008 (Attachment 1) clearly states that "use of the 5% EIA requirement is not the only acceptable, quantitative approach for incorporating LID into renewed MS4 permits in southern California." The EPA further states that "we are open to other quantitative means for measuring how LID tools reduce storm water discharges."

Therefore, Finding No. 62 does not accurately reflect the position of EPA regarding its advocacy of clear, quantitative measures for LID BMP performance in MS4 permits such as volume capture or other more common engineering approaches to sizing storm water handling facilities.

Additionally, CICWQ is concerned by the reference to Dr. Richard Horner's case study analysis which the Regional Board is using to support the inclusion of the 5% EIA limitation as a criterion for LID BMP implementation. The Finding accurately points out that this was a "limited study." The Finding should also point out, however, this is not a peer-reviewed analysis and it relies on many coarse-level assumptions about key LID BMP sizing parameters, such as generous consideration of the availability of landscaping areas for LID BMP features within several types of development projects, optimistic infiltration scenarios, and non-representative soil condition assumptions (soil data taken from the San Fernando Valley) that are applied broadly across Ventura County. We are enclosing a critique of the hydrological aspects of the Horner Case Study prepared by Geosyntec, Inc., dated May 28, 2008 (Attachment 2).

Moreover, CICWQ has pointed out during the stakeholder meetings that a limitation on EIA as a performance standard for sizing LID BMPs has created widespread confusion and misunderstanding in the development and building industry with respect to the definition of EIA, what this standard would require, and the reason for it. Proposing EIA as a performance standard has also created confusion among stormwater professionals from the principal permittee and co-permittees and consultants who support them within Orange County and within Regional Board staff as well. It is quite clear from the recent stakeholder meeting discussion that EIA does not have an agreed upon, logical definition. It may be a valid scientific concept under uncontrolled conditions (where there are no BMPs), and one that has meaning on a watershed scale where its definition first appeared, but it does not have a useful or proper role in project-level engineering design or project feature performance assessment.

We suggest striking Finding No. 62 or, at a minimum, revising it to present a reasonable, accurate and complete discussion of the debate regarding the LID BMP performance standard protocol.

B. Comments on Section XI: New Development (Including Significant Redevelopment)

1. <u>LID BMPs Should Be Preferred</u>

The CICWQ membership is committed to using appropriate LID design features and LID BMPs in new and redevelopment projects. While LID BMPs have been demonstrated to be effective stormwater management tools, they should not be limited simply to those that reduce stormwater runoff via infiltration or harvesting alone. In fact, LID includes a range of measures which can be employed on most projects and others, such as infiltration and harvesting/reuse, which have less universal application.

Projects should prioritize the selection of LID BMPs that remove stormwater pollutants, reduce stormwater runoff, and promote groundwater infiltration (where appropriate and technically and economically feasible), ET, and harvesting and reuse in an integrated approach to protecting water quality and managing water resources. It is our understanding that this approach is fairly close to the Board's originally intended language. We recommend that hard feasibility criteria should be specified in the model WQMP/DAMP upon its renewal – such that developers should not be able to bypass implementation of appropriate LID BMPs.

2. It is Neither Feasible Nor Appropriate to Mandate Universal Infiltration, Universal Infiltration Plus Harvesting, or Universal Infiltration Plus Harvesting Plus ET

We agree that LID BMPs that retain stormwater on site should be used when feasible and promoted in the Draft Permit. We do not think, however, that such BMPs should be mandated as a condition of permit compliance to the complete exclusion of other options. Such an approach would impose a universal hydrology standard mandating the on-site retention of a certain volume of water, regardless of likely water quality implications. If such an approach were achievable on a widespread basis using techniques and engineering approaches that are practicable, even to the maximum extent, we would agree to the approach. We have deep concerns, however, that such is not the case. We also have concerns that this could lead to other environmental problems. The use of retention BMPs should be promoted as preferred, but should not be mandated absent including BMPs that employ vegetation.

Retention BMPs, mandated to the exclusion of other options, have limited present utility as explained below. These points are made to illustrate the importance of maintaining a concept of LID BMPs that is broader than just retention – not to discourage the use of retention BMPs where appropriate.

- Infiltration – Infiltration BMPs can be land-intensive unless underground injection control wells can be used and many developments would not move forward as site constraints can limit the availability of land to dedicate for infiltration. Many areas subject to the Draft Permit are underlain by perched groundwater that is shallow and degraded. Infiltrating in these areas can mobilize and exacerbate preexisting contamination, create rising groundwater that then interferes with land development, or other problems. Infiltration can cause changes to habitat type, and to the hydrology of ephemeral streams, should the duration of flows be extended. It also can result in geotechnical instability and increased seismic risk, when rising groundwater increases the potential for liquefaction. Many soils in the area are not amenable to infiltration, given content such as silts and clay. Forebay areas where groundwater replenishment already is occurring by water authorities are in distinct locations, which may not correspond to where new projects are planned. New projects do not have the means to

transport retained stormwater to these forebay areas where infiltration may be desirable. Water authorities already have located and developed the most favorable zones in the forebay areas for ongoing groundwater replenishment. These authorities may resist increased infiltration over pressure zones on the basis of contamination risk, and infiltration in the forebays, as interfering with their jurisdiction.

- Harvesting – Harvesting is limited by reuse option, social acceptability, competing policy goals, and economic considerations, including the need to demonstrate that the water quality benefits of this approach warrant the significant investment entailed. A significant obstacle to harvesting is the limited availability of reuse options, whether on a local or regional basis. There are very few projects where a project proponent has a water demand that can be satisfied with captured stormwater. Typically, there would have to be open space, parks or golf courses immediately nearby or associated with the project to make this option even possible. The demand must be relatively immediate after collection so that the cisterns can be evacuated and made available for the next storm. This is particularly important in Southern California, where storms characteristically sweep through the area in a series. It is not possible to build cisterns so large that they capture the volume from the entire storm series, and there is no need to irrigate in between such storms.

- Other reuse options are extremely limited. Health codes limit the ability to reuse the water for toilet flushing, and building codes impede the construction of projects with the plumbing to accommodate this approach.

- The social acceptability of harvesting has not been demonstrated. Some places like Bermuda have been harvesting water in cisterns for decades. But there is no such precedent or history in Southern California. Who is going to maintain cisterns, monitor them during weekends, holidays and vacations? These questions are particularly acute should cisterns be required of homeowners.

- Harvesting stormwater is a policy goal that is in direct conflict with the California Legislature's goals for reclaiming and reusing wastewater. Recycled water is used largely for irrigation purposes, and in rare instances for indoor toilet flushing. The region covered by the Draft Permit enjoys the environmental and water conservation benefits of water reclamation facilities, but the demand is insufficient and recycled water goes unused. Harvesting will compete with recycled water, and offset its use to some extent. When and where is this socially desirable?

- No one has yet to address the cost of harvesting water. Certainly, at some cost, harvesting is not practicable. What are the appropriate benchmarks against which to measure this aspect? Should harvesting stormwater be used only if it is

comparable in cost to reclaimed water? What if it is five times more expensive per acre foot to produce harvested stormwater? Should it be promoted under that circumstance? Since there has been no economic study, it is difficult to gage this aspect of practicability. But this certainly counsels in the direction of folding harvesting into a broader array of BMP options.

- Finally, where is the water quality demonstration that harvesting produced water quality benefits that are commensurate with the investment? Harvesting only postpones the introduction of the stormwater into the environment. How does that postponement compare with vegetation-based BMPs that reduce the pollutant load but do not affect the timing of the discharge to any material extent?

- Evapotranspiration – Opportunities to enhance ET should be considered, but maybe limited. In some cases, soil amendments such as compost may be able to increase infiltration or shallow soil saturation and drying potential. The potential for ET, however, may be limited by excess irrigation that occupies the ET component of the hydrologic cycle. There may be exotic ET BMPs that are in development. But, practicability limits the options that are available today.

For the Regional Board's consideration, we have attached a white paper on infiltration prepared by Geosyntec Consultants (Attachment 3). The paper provides background on infiltration considerations and identifies some of the key factors necessary in properly implementing a storm water infiltration strategy. Most, if not all, of the concepts contained in the white paper have been discussed during stakeholder meetings.

3. <u>Permittees Should Not Be Required To Make Up Capture Volume Off Site Or Pay A Fee If They Cannot Retain Capture Volume On Site</u>

Off-site options available for project applicants are extremely limited and, in many cases, illusory. The San Diego Creek watershed enjoys a Natural Treatment System ("NTS") that the Regional Board approved as a regional treatment BMP for purposes of the existing permit. Certainly, the new permit should preserve this designation, and encourage other regional projects, particularly those that address existing as well as new development. But, to date, the NTS is the only regional treatment BMP approved by the Regional Board, and its capacity to detain and treat stormwater already is limited. In addition, the approval process for the NTS was arduous, and may have discouraged other entities from proposing regional solutions.

Diversion to the sanitary sewer can be considered on a case-by-case basis, but requires separate permitting involving sanitation districts. Historically, sanitation districts have been reluctant to accept stormwater, and most have policies limiting how much stormwater they will take into their respective systems. Also, it is not clear that such diversions are environmentally desirable in comparison with other options, such as using on-site vegetation BMPs which keep water in local creeks and channels, but only after natural treatment.

In short, in some circumstances off-site options and fee-based programs may be available to support a mandate that would impose a mitigation obligation on a project proponent that cannot retain the entire capture volume on site. With that said, project proponents should be required to explore such options, and adopt them only when it is practicable to do so in light of the context.

Finally, it should be pointed out that such off-site programs likely would need their own entitlements and a large financing mechanism. In the case of the NTS, entitlement and permitting took years, and the funding mechanism required an act of the California Legislature. These facts should illustrate to the Regional Board that it cannot expect such programs to be available until well into this next permit cycle, at the earliest. Any attempt to mandate acceleration would be technology-forcing and not practicable. With that said, we in the private sector long have favored regional solutions and certainly intend to pursue their promise. This is an important element of our interest in watershed master planning.

4. Permittees Should Decide Whether LID BMPs Are Not Feasible and Whether and What Types of Conventional Treatment Can Be Used

We also recommend that the permittees, which are the entities armed with the most local knowledge and appreciation of circumstances, should decide whether LID BMPs are not feasible in particular contexts and where conventional treatment can be used. Using this system, the developer can then reasonably choose, based upon the context, which of the four types of LID BMPs to employ: infiltration, harvesting, ET, or vegetative/landscaping solutions including bioretention or biofiltration with underdrains, or appropriate conventional BMPs. This holistic, basket-type approach is more practical and it is more flexible than requiring permittees to install only LID BMPs that reduce runoff via retention.

5. At Least 12 Months Are Needed To Develop A WQPM Guidance Document on LID Principles

Given discussion at the stakeholder meetings, Orange County should be given at least 12 months to develop a WQMP guidance document on LID principles including BMP specification, feasibility criteria, and engineering sizing criteria. Six months is inadequate to prepare the necessary technical materials and educate the co-permittees and development community on new requirements.

6. WQMP Content Needs To Be Revised

CICWQ suggests deleting the content of Section XII(B)(3)(a) based on conceptual agreements reached with the ad-hoc technical sub-group and replacing it with a statement requiring that the WQMP include strict, clear, technical performance standards for sizing LID BMPs based on treating current volume requirements in the

current SUSMP/DAMP. (*See* below, Section C: Comments on Areas of Conceptual Agreement).

7. Capture Volume Should Be SUSMP Volume

CICWQ suggests deleting all references to limiting EIA to 5% or less in Section XII(C)(3) based on conceptual agreements reached with the ad-hoc technical sub-group. To reiterate, we suggest replacing it with a statement requiring that the WQMP include strict, clear, technical performance standards for sizing LID BMPs based on treating current volume requirements in the current SUSMP/DAMP (24-hour, 85th percentile storm event).

We are also concerned with the following statement that appears repeatedly in Section XII(C)(3)(a-d):

> "The pervious areas to which runoff from the impervious areas are connected should have the capacity to percolate at least the excess runoff from a two-year storm event."

This statement implies 100% capture and infiltration of the excess runoff from a 2-year storm event (or other storm event if substituted). As stated above in our general comments on Section XII, a requirement to capture and infiltrate and/or detain 100% of the water quality treatment volume is infeasible under many different circumstances. We suggest striking this sentence wherever referenced and alternatively include permit conditions concerning LID BMP volume capture sizing standards in the first paragraph of Section XII(C)(3). We are including as Attachment 4 a comparison table showing the requirements of a volume capture standards for LID BMPs based on preferentially treating the 24-hour, 85th percentile storm event and those in the Draft Permit.

CICWQ does not support using EIA as an off-ramp for substituting treatment control BMPs for LID BMPs per Section XII(C)(4)(b), and urges striking this reference.

8. Hydromodification Control Strategies Should Be Implemented Pursuant To Geosyntec White Papers

CICWQ has been working with an array of permittees and developers in southern California to devise appropriate hydromodification control standards for more than two years. We support the use of hydromodification control measures where appropriate and where downstream receiving water conditions warrant installation of on-site, off-site, and/or in-stream control facilities. For the Board's consideration we have attached a white paper on hydromodification control approaches prepared by Geosyntec Consultants (Attachment 5). This paper provides background on hydromodification control considerations and provides a series of recommendation regarding approaches the permittee could use to identify and map sensitive receiving water bodies and develop appropriate hydromodification control strategies. In the baseline period before watershed

or water body based standards are adopted, we recommend using control strategies as defined in Attachment 4. This table compares the approach recommended by CICWQ to that of the current Draft Permit requirements.

Finally, we recommend that permittees have the ability to prepare their own hydromodification control requirements/plan that is receiving water specific.

C. Comments on Areas of Conceptual Agreement

CICWQ was encouraged by the formation of a stakeholder group process in December 2008, on-going discussions, and the formation of an ad-hoc technical group to attempt to reach general agreement on principles for selecting and sizing LID BMPs.

Based on general areas of discussion during stakeholder meetings and during the sub-group conference call on 1/27/09 and 2/3/09, a summary of those discussions and a four point list of areas of conceptual agreement are included:

1. Performance standards for implementing LID BMPs other than a fixed effective impervious area (EIA) percentage (3-5%) are acceptable to Coastkeeper and NRDC if a technically equivalent standard can be identified.

2. Sizing LID BMPs to capture the 85th percentile storm event (current OC SUSMP/DAMP criteria for water quality volume) is an acceptable alternative to EIA as a performance standard provided that technically-based, strict, and clear feasibility criteria are developed for any project that cannot meet the LID BMP requirements.

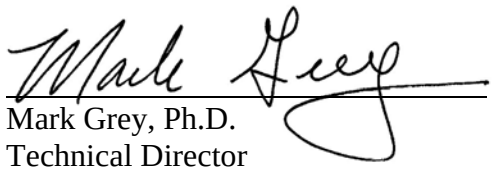
3. Prioritized LID/SUSMP BMPs for water quality volume capture are represented by: (a) infiltration, harvesting, or evapotranspiration BMPs; or (b) vegetated BMPs including bioretention and biofiltration. The water quality volume not captured by LID BMPs shall be treated consistent with SUSMP requirements. Note: There is debate regarding BMP selection options. Coastkeeper/NRDC support complete capture/accounting of the 85th% storm on site using LID BMPs from category (a) or meet off-site mitigation obligations; Permittees/CICWQ support complete treatment using category (a) and (b) BMPs.

4. If a project proponent cannot feasibly treat the SUSMP water quality volume using the prioritized application of LID/SUSMP BMPs on-site, then off-site mitigation of the remaining treatment volume must occur.

IV. Summary

CICWQ is pleased that an inclusive stakeholder process has ensued since the Draft Permit was first released in late November 2008. The process has shed significant light on areas where all stakeholders have common interests and common plans for tackling the pressing water quality improvement issues we all face. We will be an active participant in this group moving forward, and we trust that the Regional Board will continue to promote and engage in this process leading up to permit adoption. If you have any questions or want to discuss the content of our comment letter, please feel free to contact me at (909) 396-9993, ext. 252, (909) 525-0623, cell phone, or mgrey@biasc.org.

Respectfully,



Mark Grey, Ph.D.
Technical Director
Construction Industry Coalition on Water Quality